

Geraes, which agrees very closely with *P. oris* in its cranial characters, but differs by its paler and more uniformly buffy colour, its fully haired under surface, and its much longer and softer fur, of which the spines form a less considerable proportion than usual.

In the same locality Mr. Robert also obtained a porcupine allied to *Coendou prehensilis*, but differing by its much darker colour and by the reduction of the white of the bases of the dorsal spines to about 15 or 20 mm. In these respects it agrees with the type of Gray's *C. tricolor*, from which, in the absence of much larger series of different ages, I am unable to separate it.

XXVIII.—*New Bats and Rodents from West Africa, the Malay Peninsula, and Papuasia.* By OLDFIELD THOMAS.

Nyctymene * *Robinsoni*, sp. n.

Slightly smaller than *N. major*. Ears comparatively large. Fur long, thick, and close; hairs of back about 10 mm. in length. Base of interfemoral membrane above more thickly covered than in the allied species; otherwise the distribution of the fur is similar. General colour above dark, between "wood-brown" and "drab" of Ridgway, the black dorsal line strong and well defined, extending from the withers to the base of the tail. Sides of neck and sides of body below dark "cinnamon," the middle line of neck and chest more greyish. Spotting profuse, the ears as well as the limbs and membranes with many prominent white spots. Ears much larger than in any other species, even slightly exceeding those of the much larger *N. aello*.

Skull broad and heavily built. Frontal profile very convex above the orbits, the upper edge of which is considerably swollen. Second lower premolars with well-marked antero-internal supplementary cusps. Coronoid process well slanted backwards, not so upright or convex as in *N. major*.

Dimensions of the type (measured on the spirit-specimen):—

Forearm 67 mm.

Head and body 100; tail 24; lower leg and foot (c. u.) 41.5; ear 18.

* *Nyctymene*, Bechst. 1800.

Syn. *Cephalotes*, Geoff.; *Harpyia*, Ill.; *Gelasinus*, Temm.; *Uro-nycteris*, Gray.

Skull: greatest length 32.5; basal length 28; zygomatic breadth 21.7; interorbital breadth 6.1; height of frontal convexity above palate behind cheek-teeth 11.7; upper tooth-row 11.4. Lower jaw: length from condyle to front face of canines 24.3.

Hab. Cooktown, Queensland.

Type. Adult male. B.M. no. 3. 8. 3. 1. Presented by Herbert C. Robinson, Esq. Two specimens.

This fine species is readily distinguishable by its convex skull and large ears, which exceed in length those of its nearest ally, *N. major*, by 3-4 mm.

The only *Nyctymene* hitherto recorded from Australia is the much smaller *N. albiventer*, Gray, which has been taken at Cape York.

Nyctymene major lullulae, sp. n.

Like *N. major*, but smaller.

Fur of the same very woolly character as is found in *N. major*; hairs of back about 9 mm. long. General colour as in the darker examples of *major*; pale drab above, the dorsal line not very strongly marked. Under surface wood-brown, the sides rather more fawn. Ears as large as in *N. major*, therefore rather larger in proportion to the general size. Wing-membranes and ears profusely spotted.

Skull closely resembling that of *N. major*, but smaller throughout. Frontal profile much less convex than in *N. Robinsoni*, the supraorbital edges sharper. Front of coronoid process of mandible with the convex projection found in *N. major* and not in *N. Robinsoni*.

Dimensions of the type (measured in spirit):—

Forearm 70 mm.

Head and body 100; tail 21; ear 14; third finger, metacarpus 47, first phalanx 37, second phalanx 50; fifth finger 95; lower leg and foot (c. n.) 42.

Skull: greatest length 33; basal length 29.5; zygomatic breadth 21.8; interorbital breadth 5.5; height of forehead above palate 11; upper tooth-row 11.5. Lower jaw: condyle to front face of canines 24.8.

Hab. Woodlark Island, E. of New Guinea.

Type. Old male. B.M. no. 96. 11. 5. 28. Collected, 1896, by Mr. A. Meek. One specimen.

While in nine specimens of *N. major* the useful and exact measurement last given (length of lower jaw from condyle to front face of canines) ranges only from 27.0 to 28.1 mm., in the Woodlark example, an old male, it is only 24.8, a

difference which necessitates the varietal separation of this form. In *N. aello* this measurement is 30·2, in *N. cephalotes* 22·8 to 23·1, and in *N. albiventer* 19·2 to 21·5.

Pipistrellus nanulus, sp. n.

A pigmy species with very short forearm. A bone in the penis.

Size very small. Form fairly stout, the body large in proportion to the short forearms, which are shorter than any hitherto recorded in this genus. Fur of medium length; hairs of back about 4 mm. long. Muzzle thick and broadly rounded, the glandular prominences well developed. Ears rather short, their inner margin straight basally, gradually curving round to form the broadly rounded end to which there is no defined tip; outer margin slightly concave mesially, slightly convex below; basal lobe low, well defined posteriorly. Tragus of medium length, fairly broad, its broadest part opposite the middle of its inner margin; the latter straight or faintly concave, tip blunt, outer margin convex; basal lobe sharply angular. Limbs and feet short; wings to the base of the toes; postcalcareal lobule narrow, distinct; extreme tip of tail projecting; penis with a bone, its prepuce hairy to the tip.

Colour (in spirit) blackish brown above and below. All the membranes also very dark, without lighter edging.

Skull broad and rounded, with large low brain-case and short muzzle; upper profile line practically straight. Base of skull between bullæ broad, its bony edges running outwards quite to the bullæ.

Upper incisors prominently bicuspid; the inner one with its large postero-external secondary cusp falling but little short of the main cusp, and exceeding by about the same distance the top of the outer incisor; secondary cusp of the latter posterior, about halfway up its main cusp. Anterior upper premolar comparatively large, filling up the triangle between the canine and second premolar, which are separated from each other external to it; its tip visible externally just behind the hinder edge of the canine. Lower incisors tricuspid, overlapping.

Dimensions of the type (measured in spirit):—

Forearm 25·5 mm.

Head and body 41; tail 25; ear 8; tragus on inner edge 2·7; third finger, metacarpus 23, first phalanx 9, second phalanx 12; fifth finger 11; lower leg 10; hind foot 5·6.

Skull: greatest length 11·1; occiput to bottom of nasal

notch 9.5; breadth of brain-case 6.1; front of canine to back of m^3 3.9.

Hab. Efulen, Cameroons.

Type. Male. B.M. no. 4. 2. 8. 8. Collected by Mr. G. L. Bates.

This bat shares with the larger *P. crassulus* of the same region, also discovered by Mr. Bates, a disproportionately short forearm, the length of this member being less than has been hitherto recorded in any *Pipistrelle*, and nearly the least of any known bat. From *P. minusculus*, Miller, apparently its nearest ally, *P. nanulus* may be readily distinguished by its rounded ears and other differences in detail.

Kerivoula bicolor, sp. n.

A small species with white-tipped wings.

Size very small, but little larger than *K. pusilla* and *K. minuta*. Build light and delicate throughout. Ears of medium length, reaching, when laid forward, just to the tip of the nose; inner margin strongly convex; tip blunt, the concavity below it not deep. Tragus as in *K. pusilla*, a slight concavity above the process at its outer base. Wings to the base of the toes. Calcars extending three-fifths of the distance towards the tip of the tail.

Fur of medium length; hairs of back about 7 mm. long (10 mm. in *K. minuta*). Wings practically naked, the base of the interfemoral membrane thinly clothed, and with a few fine hairs on its posterior margin not forming a continuous fringe. Hind legs and feet well covered with longish hairs.

Colour of head and body above (in spirit) apparently fawn-colour or drab, below pure sharply contrasted white. Wings drab-brown, changing abruptly to pure white at their outer ends. On one wing of the type the white extends inwards to about the line of the fifth finger, running also halfway along the edge of the membrane towards the foot; on the other wing it is confined to the part outwards of a line drawn from the tip of the index to the tip of the fourth digit; probably its exact extent is always variable.

Upper incisors slender, bicuspid; the main cusp of the outer reaching to the tip of the secondary cusp of the inner incisor. Upper premolars with their antero-posterior considerably exceeding their transverse diameter, the first slightly larger than the second and smaller than the third.

Dimensions of the type (measured in spirit):—

Forearm 29 mm.

Head and body 35; tail 36; ear 12.5; tragus on inner

edge 6·3; third finger, metacarpus 28, first phalanx 12·8, second phalanx 18·5; fifth finger 44; lower leg 13; hind foot (s. u.) 7; calcar 12·7.

Hab. Biserat, Jalor, Malay Peninsula.

Type. Female. B.M. no. 3. 2. 6. 91. Collected and presented by Messrs. H. C. Robinson and N. Annandale.

This beautiful little bat may be readily distinguished from all its allies by its white belly and particoloured wings. Its nearest relation is probably *K. minuta*, Miller*, also from the Peninsula, but besides the differences in colour that species has much longer fur (10 mm. on the back) and very differently shaped premolars.

The type of *Kerivula bicolor* was captured during Messrs. Robinson and Annandale's expedition of 1901 to the Malay Peninsula, but was accidentally overlooked when Mr. Bonhote was preparing his account † of the mammals then obtained.

Emballonura nigrescens solomonis, subsp. n.

Similar in all essential characters to the true *E. nigrescens*, Gray, but markedly larger. The head 14–14·5 mm. in length as against 13·0, the foramen 35–38 as against 32–34, and the fifth finger 37–38 as against 33.

The upper incisors vary in shape, being sometimes flattened and more or less bicuspid, and sometimes conical and unicuspid. In all the available specimens of true *nigrescens* they are unicuspid.

Dimensions of the type:—

Forearm 37 mm.

Third finger, metacarpus 32, first phalanx 9, second phalanx 15; fifth finger, metacarpus 24, first phalanx 8, second phalanx 4·5.

Skull: greatest length 12·8; front of canine to back of m^3 4·7.

In a spirit-specimen the length of the head and body is 40 mm.; tail 10; head 14·3; ear from notch 11·8; lower leg and foot (s. u.) 17·5; calcar 10.

Hab. New Britain group and Solomons. Type from Florida Island, Solomons.

Type. Adult female. B.M. no. 1. 11. 5. 8. Collected 7th January, 1901, by Mr. A. Meek. Other specimens obtained by Rev. G. Brown (1877), H. B. Guppy (1883), and C. M. Woodford (1887–1888).

This is the bat described in the Catalogue as *E. nigrescens*

* Proc. Acad. Philad. 1893, p. 321.

† 'Fasciculi Malayensis,' Zool. i. 1903.

by Dobson, who drew up his account from the example obtained by the Rev. G. Brown in the Duke of York Group, and practically ignored the type, which is not in very good condition. Now, however, I have examined two specimens from New Guinea which agree precisely with the original example in their dimensions and are equally smaller than the many Solomon Island specimens in the Museum Collection. There does not seem to be any difference in the more important characters of the tragus, ear, &c., and I have therefore thought it best to regard the eastern form as only a subspecies of *E. nigrescens*.

Funisciurus Pembertoni, sp. n.

A member of the *F. pyrrhopus* group, with greyish body and bright fulvous limbs.

Size probably equalling that of *F. pyrrhopus*, but the typical and only specimen is immature. General colour above pale olive-grey, quite different to the dark olivaceous of *F. pyrrhopus*. Head like back, without any rufous. Eyelids white. Ears comparatively large, the lower half of their backs and a patch on the head behind them prominently pure white; their ends behind blackish. Sides with the usual white line present but not conspicuous, a slight darkening of the body-colour perceptible below it. Flanks clearer grey. Under surface from chin to anus and inner sides of limbs pure snowy white. Arms and upper surface of hands, legs (but not thighs), and upper surface of feet rich orange-fulvous, much paler than the deep fulvous found in *F. pyrrhopus*. Tail-hairs grey, with black subterminal rings and white tips, those of the end with broad black tips; below the centre line of the tail is greyish, gradually becoming rich fulvous terminally.

Dimensions of the type (young):—

Head and body 138 mm.; tail 127; hind foot 37; ear 14.

Skull: greatest length 41; combined length of m^1 and m^2 3.9.

Hab. Dondo, Cuanza R., Angola.

Type. Half-grown female. Collected 9th June, 1901, by C. Hubert Pemberton.

This brightly marked squirrel, the Angolan representative of *F. pyrrhopus*, is readily distinguishable from that species by the entire absence of rufous from the head, by its much longer ears, the white ear-patches, and the different tone of the rufous of the limbs. No other known species is at all like it.

Uromys Stalkeri, sp. n.

A member of the *U. Brujnii* group.

Size medium. Fur soft and fine, about 10 mm. in length on the back, straight on the head and body, more woolly on the rump. General colour above uniform cinnamon-brown, scarcely perceptibly ticked or lined; sides but little paler; lateral colour passing on to the edges of the belly; the middle line of the under surface from throat to anus, for a breadth varying from $\frac{1}{2}$ to $1\frac{1}{2}$ inch, pure white, the hairs white to their bases. Head rather greyer, without special orbital or other markings; whiskers very numerous, black. Ears small, brown. Upper surface of hands and feet dull whitish, without darker metapodial patches. Tail of medium length, very finely scaled (scales about 16-17 to the cm.); naked; uniformly brown throughout.

Skull with large, ovoid, convex brain-case and short muzzle; nasals short; interorbital region broad, flat, its edges sharpened but not raised, continuous with the inconspicuous ridges that pass on to the parietals; interparietals large; zygomatic plate scarcely projected forward; palatal foramina short, evenly crescentic; posterior nares widely opened; bullae small. Teeth of normal proportions.

Dimensions of the type (measured in the flesh):—

Head and body 135 mm.; tail 137; hind foot 27; ear 16.

Skull: greatest length 33·4, basilar length 27, zygomatic breadth 17, nasals $10 \times 3\cdot7$; interorbital breadth 5·8; brain-case, length 16·7, breadth 14·5; interparietal $4\cdot7 \times 9\cdot5$; palate length 15; diastema 9·2; palatal foramina $4\cdot9 \times 2$; length of upper molar series 6.

Hab. Gira R., British New Guinea. Alt. 200 m.

Type. Female. B.M. no. 4. 6. 7. 11. Original number 26. Collected 25th October, 1903, by Mr. W. Stalker.

This species is distinguishable from its allies by its proportionally large brain-case and small muzzle. The narrow area of pure white along its under surface is also characteristic.

In the same locality Mr. Stalker obtained a number of specimens referable to *U. levipes*, Thos.